

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

By this Amendment, claims 1-4, 6-7, 9-10, 15, 20-23, 25-26, 28, and 41-46 have been amended to more clearly point out certain features of applicant's invention. Claims 5, 16 and 17 have been cancelled and their subject matter incorporated into amended claim 1. Claims 18 and 19 have been cancelled because their subject matter is duplicative of now-amended claims 6 and 2, respectively. Claims 24, 27 and 29-40 have been withdrawn as a result of an election made in response to a Restriction Requirement. New claims 47-50 have been added.

No new matter has been added.

Claims 1-4, 6-15, 20-23, 25-26, 28, and 41-50 are pending.

Restriction Requirement

The Examiner issued a restriction requirement between the following groups of claims:

- Group I, claims 1-23, 25-26, 28 and 41-46, drawn to compositions and methods of making them; and
- Group II, claims 24, 27 and 29-40, drawn to pipes/pipe fittings.

Applicants affirm the provisional election of the claims of Group I, without traverse. Applicants reserve the right to prosecute the unelected claims of Group II in one or more divisional applications.

Information Disclosure Statement (IDS)

The Examiner indicated in the Office Action that the IDSs submitted on December 17, 2001 (Paper No. 1½), February 12, 2002 (Paper No. 2), July 30, 2002 (Paper No. 5), February 19, 2003 (Paper No. 6), and March 3, 2003 were considered. Applicants respectfully note that, although the Examiner signed the form PTO-1449 of the IDS submitted on July 30, 2002 (Paper No. 5), the initialing beside the individual citations was overlooked. Applicants respectfully request that the Examiner initial each reference she considered and forward a copy to the Applicants with the Examiner's next mailing.

Rejections Under 35 U.S.C. §§ 102 and 103

1. Berthold (DE 199 45 980 A1)

The Examiner rejected claims 1, 2, 6-14, 23, 25 and 41-46 under 35 U.S.C. § 102(a) as being anticipated by the English translation of Berthold et al., alleging that Berthold teaches compositions containing 30 to 60% low molecular weight ethylene homopolymer and 30 to 65% high molecular weight copolymer of ethylene with another olefin, that the compositions have densities of more than 0.940 g/cm³ and melt flow indices of 0.01 to 10 dm/min., that the high molecular weight polymer is bimodal and that the compositions are "hot plastified." The Examiner further alleges that the properties of claims 8-13 would be inherent in the Berthold compositions given the similarity of the polymers they contain.

The Examiner also rejected claims 3-5, 15-22, 26 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Berthold et al. The Examiner alleges that, in addition to the features mentioned above, Berthold describes the production of molded bodies and fillers.

Applicants traverse these rejections. Applicants respectfully asserts that Berthold does not anticipate, teach, or suggest the claims as amended or newly presented by this Amendment.

A claim is anticipated and fails to meet the requirement of § 102 only when a single prior art reference discloses each and every element of the claimed invention. *See Lewmar Marine, Inc. v. Barient*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987). Further, to establish a prima facie case for obviousness, the prior art reference must teach or suggest all the claim limitations. *See M.P.E.P.* §§ 2142-43.

As recited in the amended and new claims, the polyethylene composition having a density of about 0.945 to about 0.960 g/cm³, a melt flow index of about 0.1 to about 0.4, and a stress crack resistance of at least 24 hours, comprises a melt blend of three individual polyethylene resins. The three polyethylenic resins are recited as a first high density polyethylene resin having a particular density and melt flow index, a second high density polyethylene resin having a particular density and melt flow index, and third polyethylene resin selected from the group consisting of linear low density polyethylene resin, linear medium density polyethylene resin, and mixtures thereof.

Applicants respectfully assert that Berthold does not anticipate or teach or suggest every element of the claimed composition. In particular, applicants assert that Berthold does not anticipate, teach or suggest polyethylene compositions that comprise a melt blend of three individual, already formed polymers. In contrast to the present invention, Berthold at most

teaches a polyethylene molding mass produced by the use of a multi-step reaction sequence consisting of three successive liquid phase polymerizations accomplished in cascaded suspension-polymerization reactors. The "hot plastified" reference cited by the Examiner is disclosed by Berthold to be a plasticization of the entire polyethylene molding mass in an extruder to form a product, not the melt blending of individual resins in an apparatus such as, but not limited to, an extruder to form a product.

Moreover, applicants respectfully assert that Berthold does not anticipate, teach or suggest three individual polyethylene resins that have the specific densities and melt flow indicies that are recited in the present claims. Applicants assert that Berthold is simply not concerned with the density and melt flow index of three individual resins for melt blending together, but rather is only concerned with the molecular weight of the components of a polyethylene molding mass, a property unrelated to density. Further, applicants assert that none of the polymers formed in the multi-step reaction sequence according to Berthold are inherently a linear low density or linear medium density polymer, absent evidence to the contrary.

In view of the foregoing, applicants respectfully submit that Berthold does not anticipate, teach, or suggest every element of the invention, as presently claimed. Withdrawal of the rejections under 35 U.S.C. §§ 102(a) and 103(a) as they may be applied to the amended and newly presented claims is respectfully requested.

2. *Tajima (U.S. Pat. No. 4,835,219)*

The Examiner rejected claims 1-5, 7-17, 19-23, 25-26 and 41-46 under 35 U.S.C. § 102(b) as being anticipated by Tajima et al. The Examiner alleges that Tajima teaches polyethylene compositions used for extrusion molding, which compositions contain a polyethylene A and a polyethylene B, each having certain properties and yielding a composition having values of ESCR of 70+. The Examiner further alleges that claims 8-11 would be inherent, given the substantial identity of the amounts and types of resins used in the Tajima compositions.

The Examiner also rejected claims 6 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Tajima in view of background statements in the current specification.

Applicants traverse these rejections. Applicants respectfully asserts that Tajima does not anticipate, teach, or suggest the amended or newly presented claims.

In particular, Tajima does not anticipate, teach or suggest a polyethylene composition, or articles produced therefrom, that is a melt blend of three different polyethylene resins having the specific properties recited in the amended claims. Rather, Tajima teaches only a composition containing two resins, polyethylene A and polyethylene B. One of ordinary skill in the art would not be motivated by the teachings of Tajima to use three polyethylenes having different properties in a polyethylene composition to obtain a final composition having the specific properties of density, melt flow index and stress crack resistance recited in the pending claims. Therefore, Tajima does not anticipate, teach or suggest every element of the invention, as presently claimed. Withdrawal of the rejections under 35 U.S.C. §§ 102(b) and 103(a) as they may be applied to the amended and newly presented claims is respectfully requested.

3. *Japanese Kokai No. 100444/79*

The Examiner rejected claims 1, 4, 7, 12-14, 23, 25 and 41-43 under 35 U.S.C. § 102(b) as being anticipated by Japanese Kokai No. 100444/79 (partial translation). The Examiner alleges that Japanese Kokai No. 100444/79 teaches polyethylene compositions having density of 0.930 to 0.960 and melt indices of 0.05 to 2.0, that are made by blending 10 to 65% of an ethylenic copolymer having a density of 0.91 to 0.95 with 35 to 95% of an ethylenic polymers having a density of 0.955 or higher.

Applicants have obtained a full English translation of this patent, a copy of which is here enclosed.

Applicants traverse the rejections based on this Japanese patent. Applicants respectfully assert that Japanese Kokai No. 100444/79 does not anticipate the claims as amended or newly presented by this Amendment.

As outlined above with respect to Tajima, the present invention concerns polyethylene compositions made by combining at least three different types of polyethylenes. Kokai No. 100444/79 also does not anticipate, teach or suggest a polyethylene composition, or articles produced therefrom, that is a melt blend of three different polyethylene resins having the specific properties recited in the amended claims. Rather, Kokai No. 100444/79 teaches only a composition containing two resins, polyethylene A and polyethylene B. One of ordinary skill in the art would not be motivated by the teachings of Kokai No. 100444/79 to use three polyethylenes having different properties in a polyethylene composition to obtain a final composition having the specific properties of density, melt flow index and stress crack resistance

recited in the pending claims. Therefore, Kokai No. 100444/79 does not anticipate, teach or suggest every element of the invention, as presently claimed.

Withdrawal of the rejections under 35 U.S.C. § 102(b) as they may be applied to the amended and newly presented claims is respectfully requested.

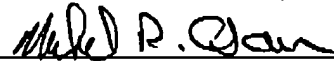
Citation of Interest

Applicants acknowledge the prior art cited as of interest and not relied upon by the Examiner.

Conclusion

Applicants respectfully submit that this application is in condition for allowance, and an early favorable response is respectfully requested.

Respectfully submitted,



Michael R. Asam

Reg. No. 51,417

Jones Day

North Point

901 Lakeside Avenue

Cleveland, Ohio 44114

(216) 586-7770